Method and Apparatus for Calibrating a Multiport To System for Measurement of a DUT Adamian, et al. Docket No.: A00462/70015 JNA Page 1 of 33.

THE SINGLE-ENDED S-MATRIX

			Stimulus		
			Port 1	Port 2	
Response	Port 1	· ·	S_{11}	S ₁₂	
	Port 2		S_{21}	S ₂₂	

Syz z = stimulus port y = response port

FIG. 1(a)

(Related Art)

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THE MIXED-MODE S-MATRIX

Stimulus

				Differential Mode		Common Mode	
	Mode			Port 1	Port 2	Port 3	Port 4
Response	Differential Mode	Port	→	S_{DD11}	S_{DD12}	S _{DC11}	S_{DC12}
	Diffe	Port 2		S_{DD21}	S_{DD22}	S _{DC21}	S_{DC22}
	Common Mode	Port 3		S _{CD11}	S _{CD12}	S _{CC11}	S _{CC12}
	Commo	Port 4		S _{CD21}	S_{CD22}	S _{CC21}	S _{CC22}

Swxyz

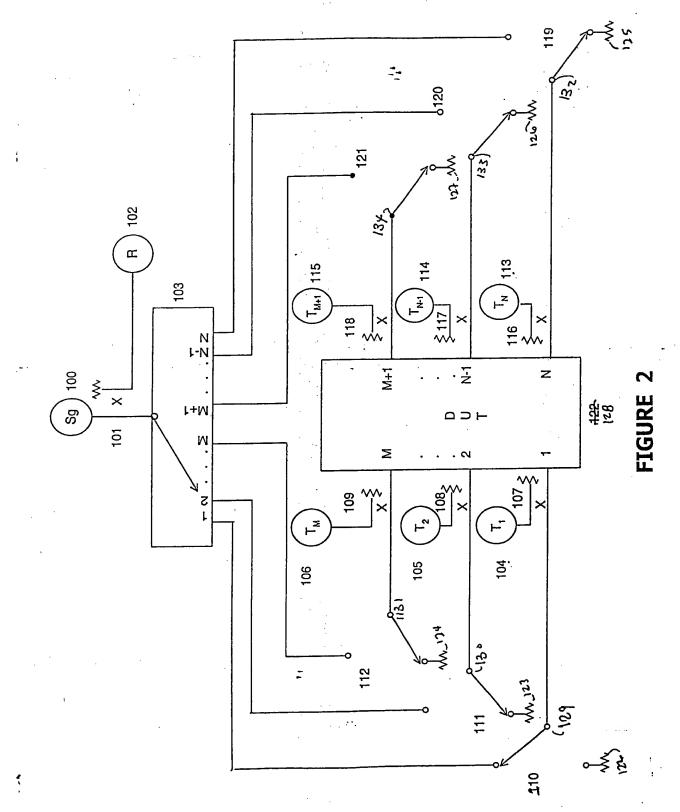
w = response mode x = stimulus mode

z = stimulus port

y = response port

FIG. 1(b)

(Related Art)



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Method and Apparatus for Calibrating a Multiplet Test System for Measurement of a DUT Adamian, et al. Docket No.: A00462/70015 JNA Page 4 of 33

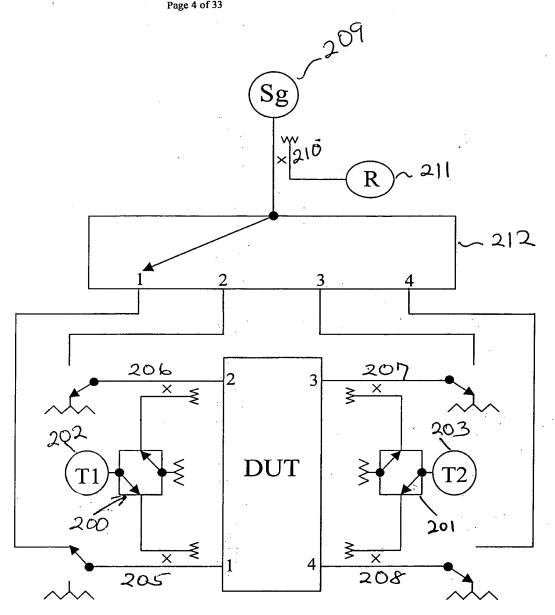
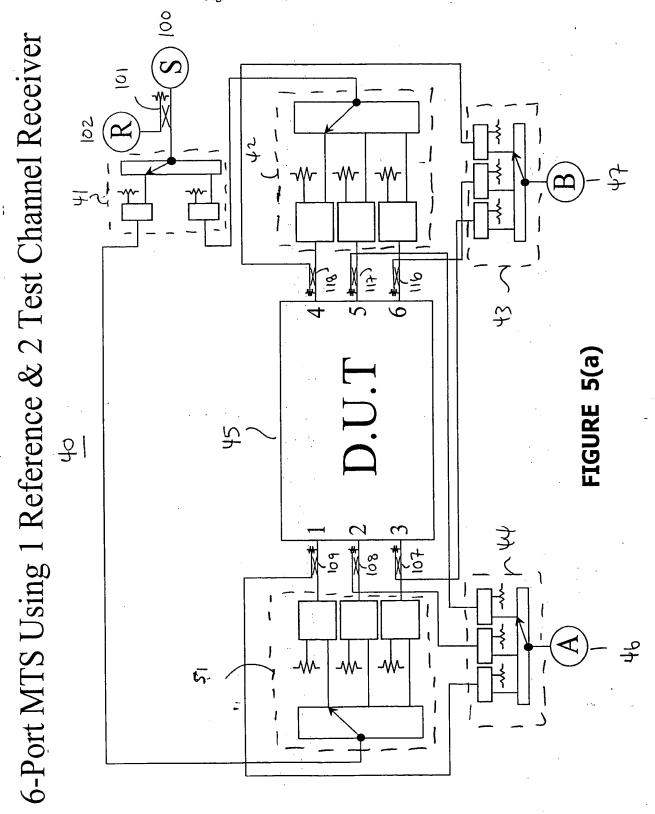


FIGURE 3

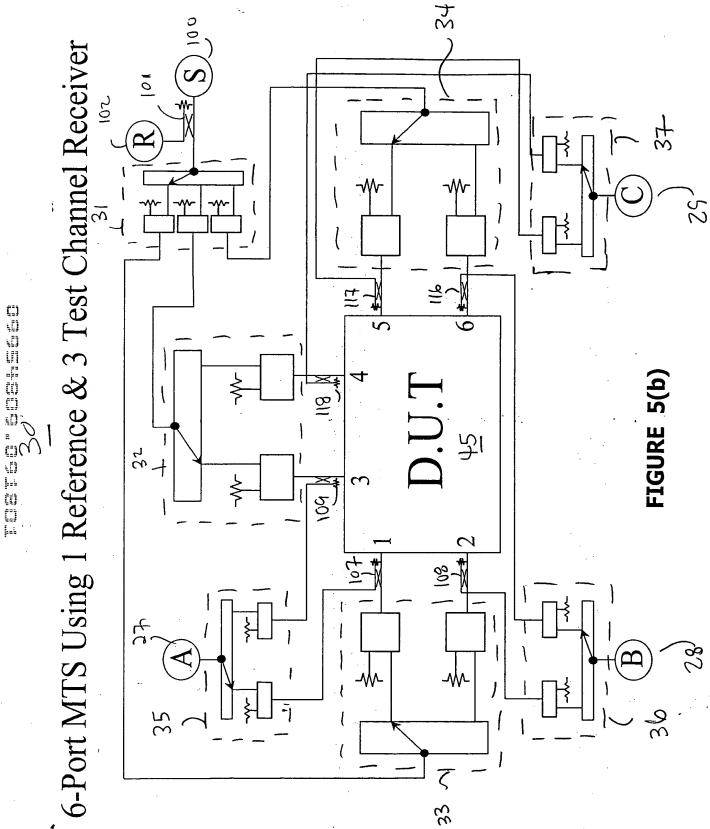
Method and Apparatus for Calibrating a Multiport Test System for Measurement of a DUT Adamian, et al. Serial No.: ---Docket No.: A00462/70015 JNA Page 5 of 33 9-Port MTS Using 1 Reference & 3 Test Channel Receiver 10 ی ťŪ 12 $\frac{2}{5}$ 主 \sim 2

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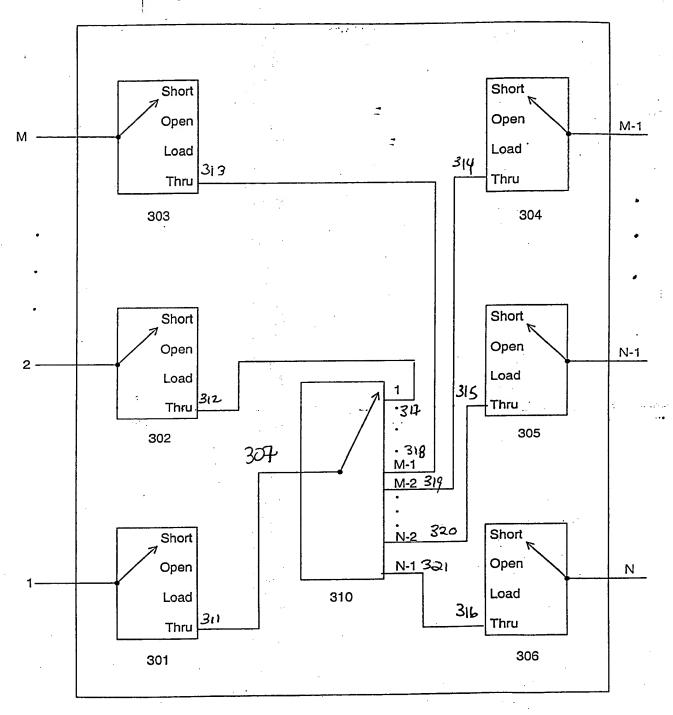


FIGURE 6 (Related Art)

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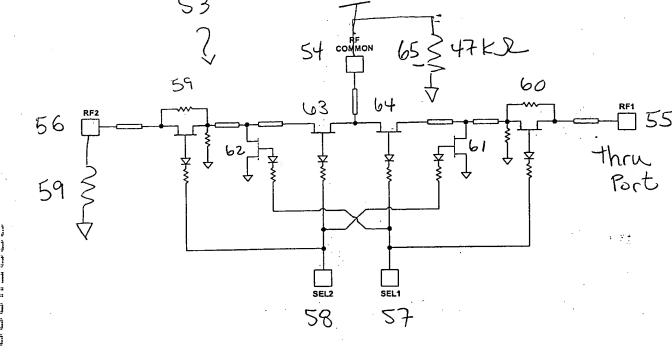
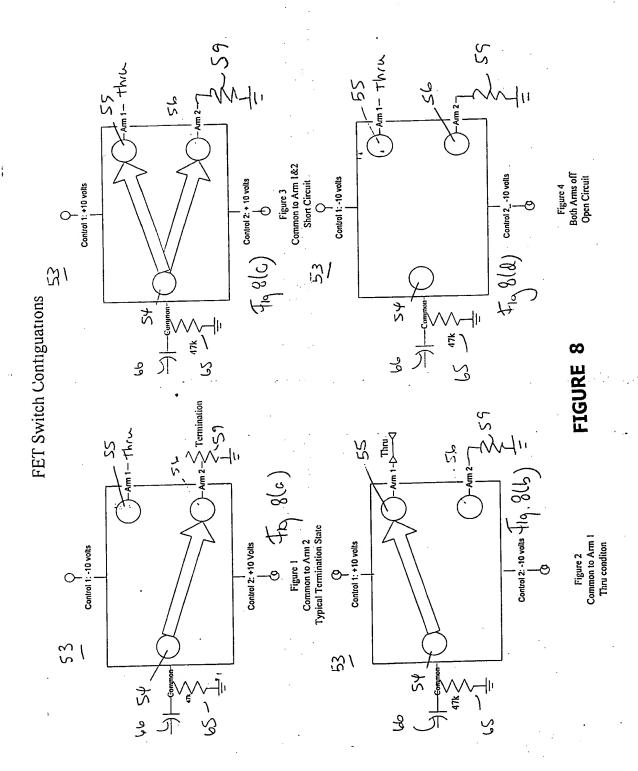


FIGURE 7

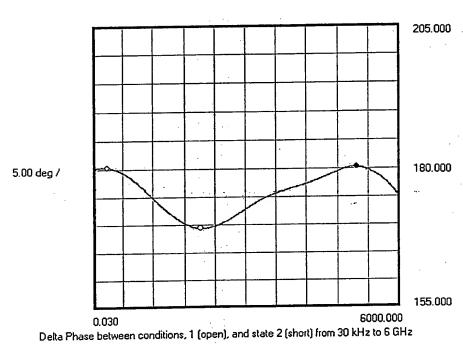
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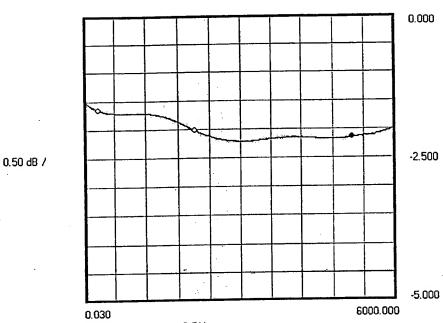
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FIGURE 9

Method and Apparatus for Calibrating a Multir System for Measurement of a DUT Adamian, et al. Docket No.: A00462/70015 JNA Page 12 of 33





Condition 2 (short) from 30 kHz to 6 GHz

FIGURE 10

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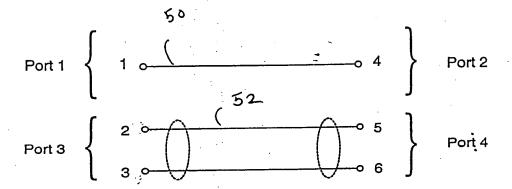


FIGURE 11

FIGURE 14

Method and Apparatus for Calibrating a Multiport Test System for Measurement of a DUT Adamian, et al. Docket No.: A00462/70015 JNA Page 14 of 33

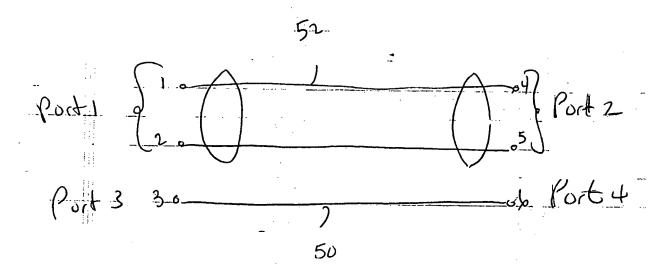


FIGURE 12

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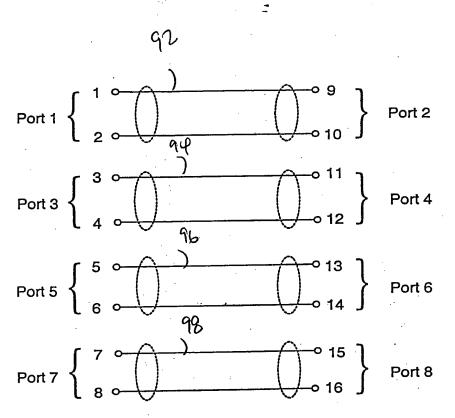


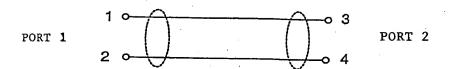
FIGURE 15

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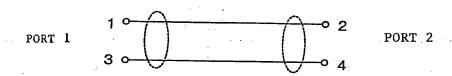
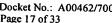
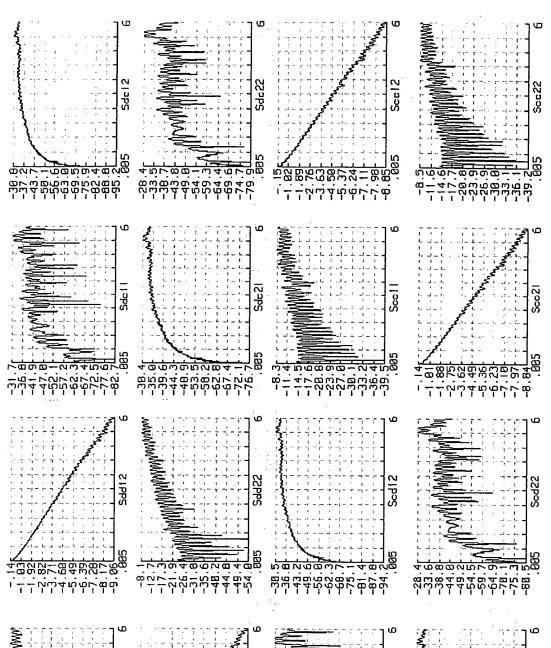


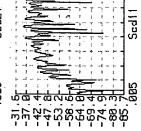
FIGURE 17

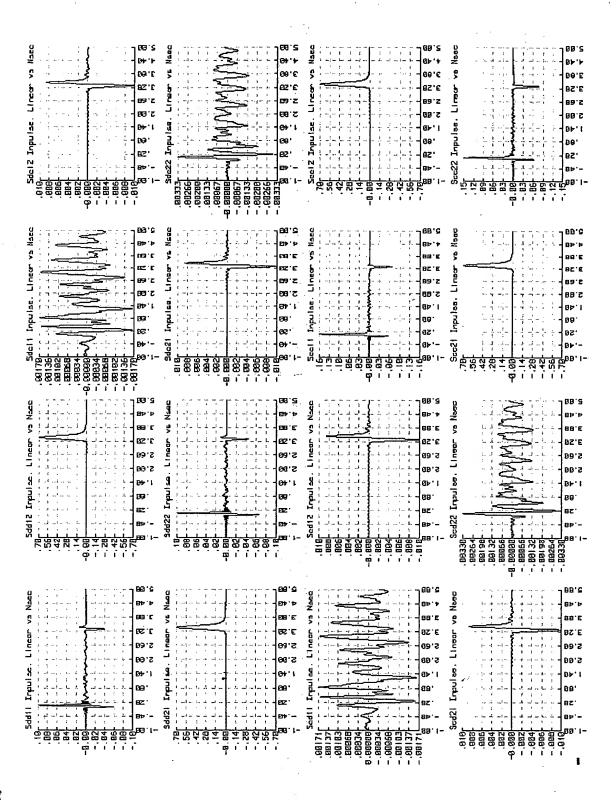
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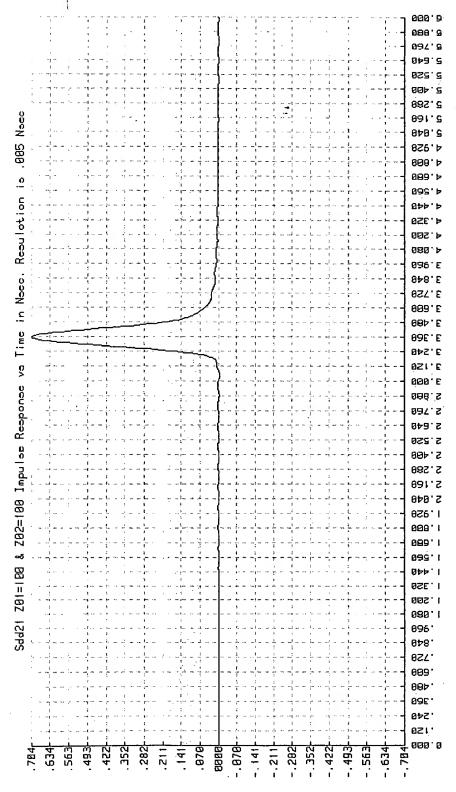




TGURE 19

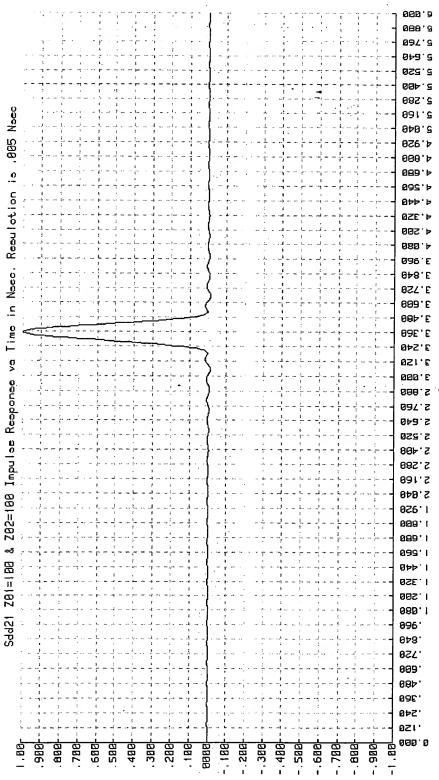
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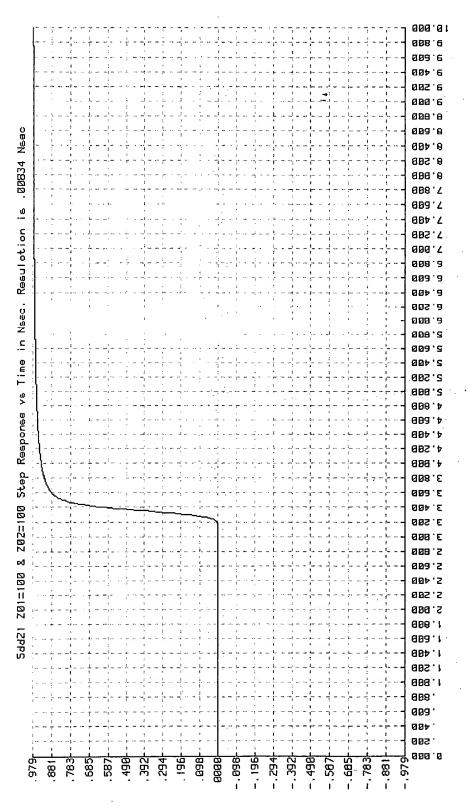
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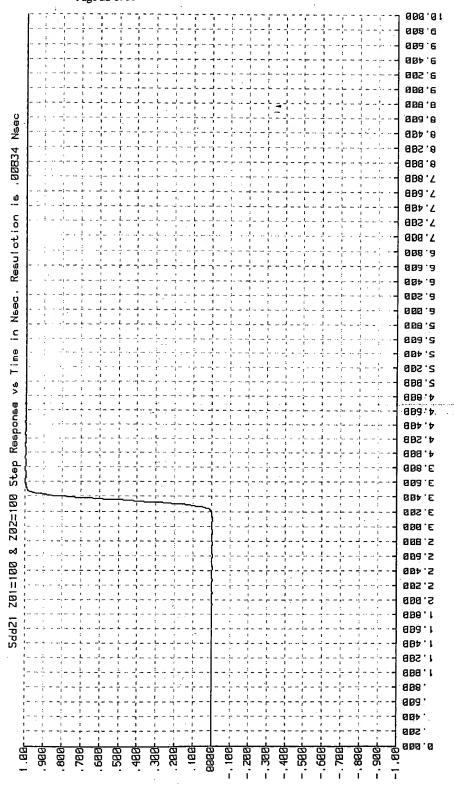
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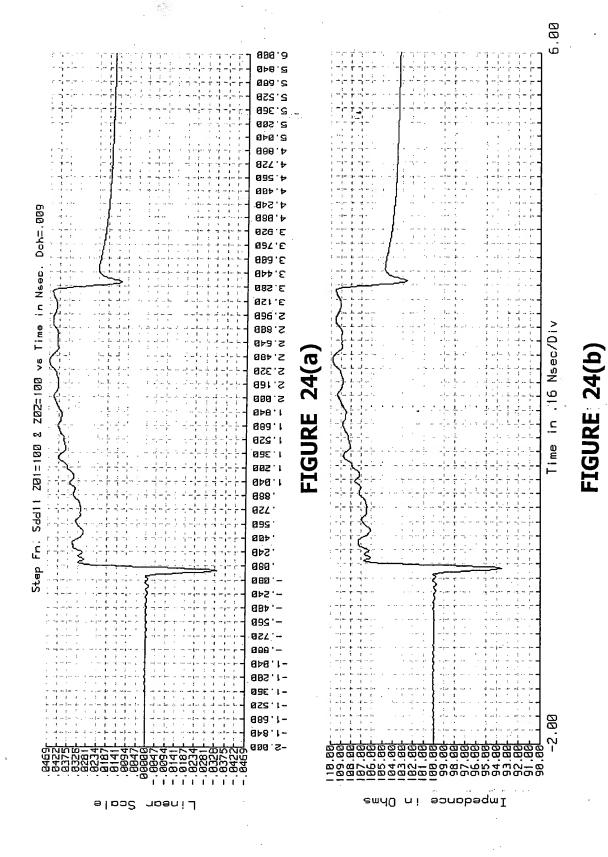
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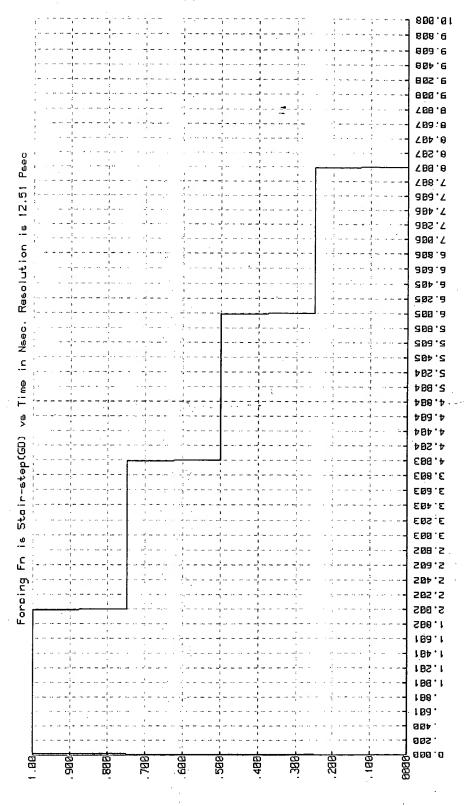
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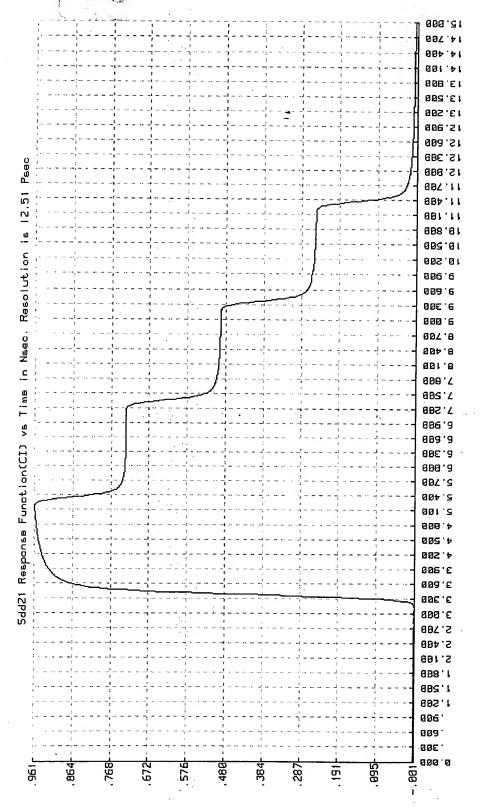
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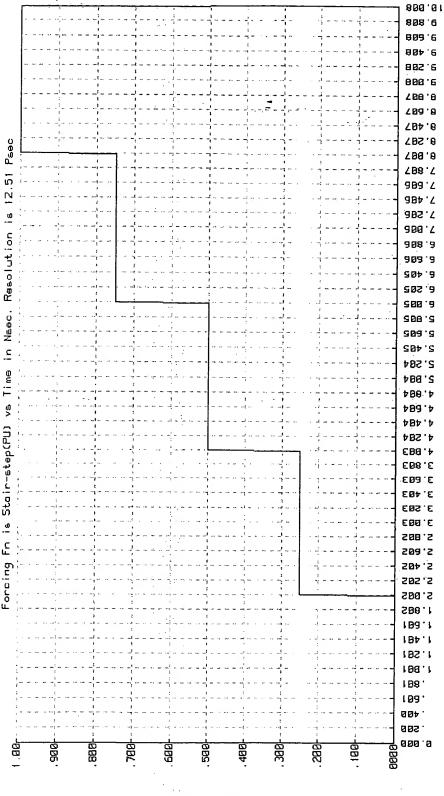
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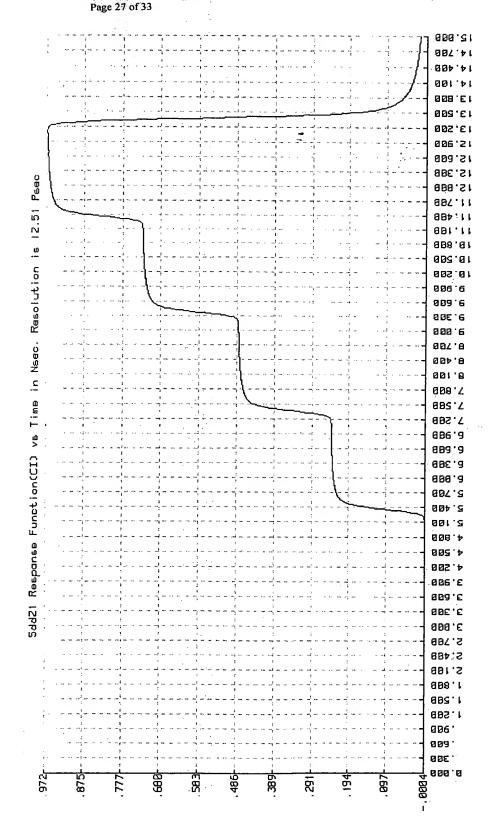
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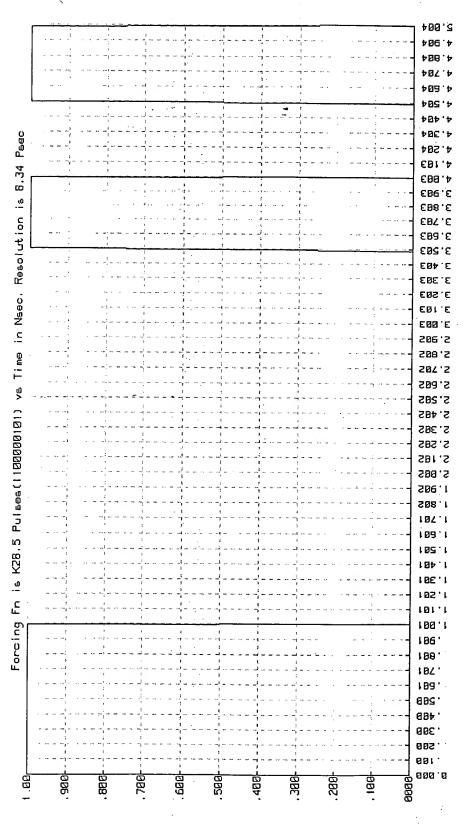
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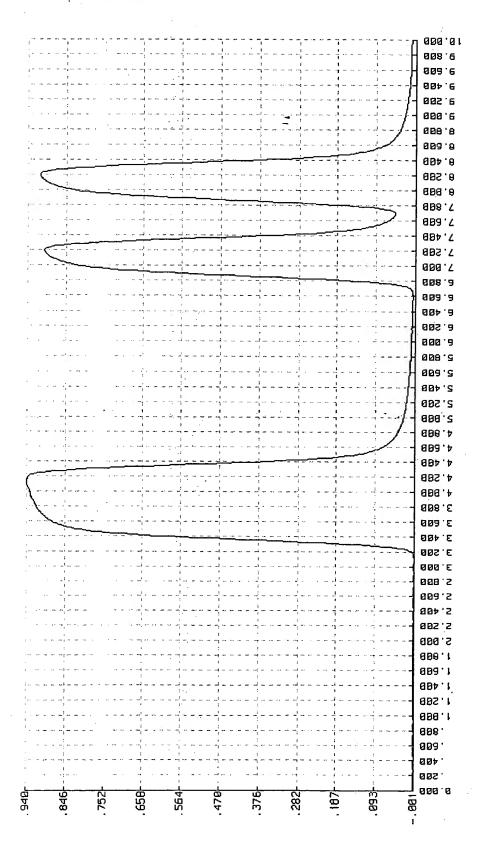


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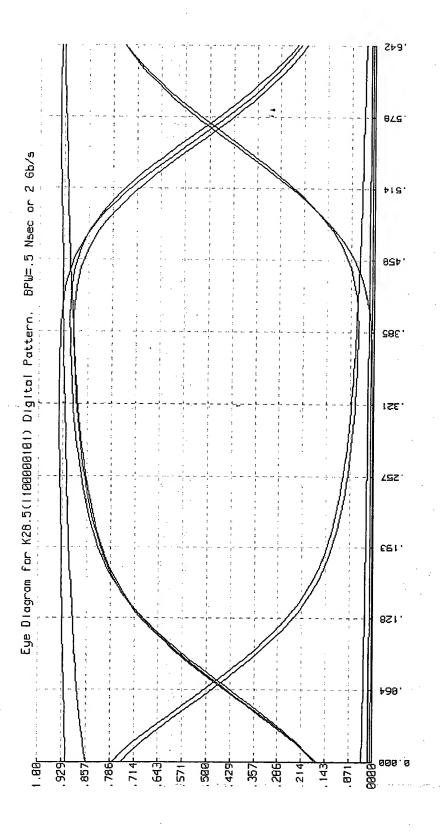
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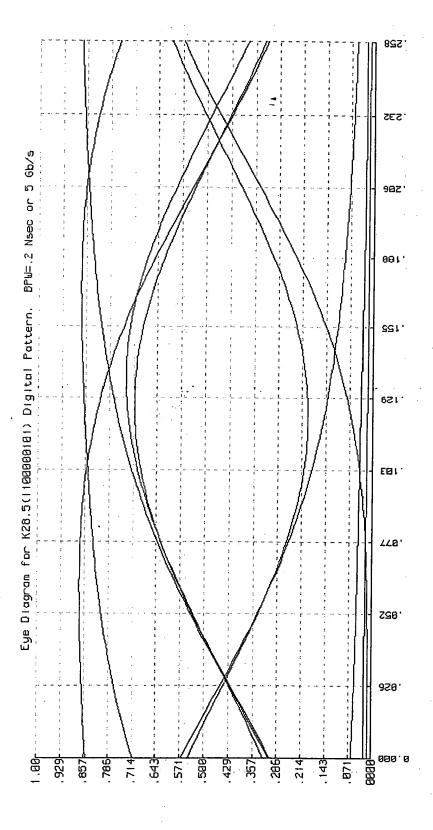


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IGURE 31

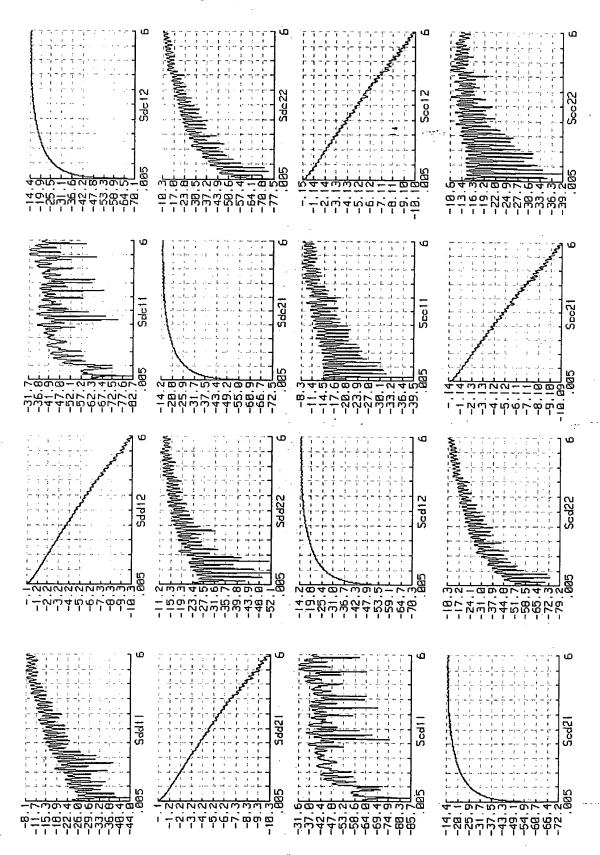
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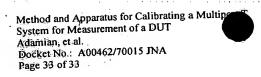
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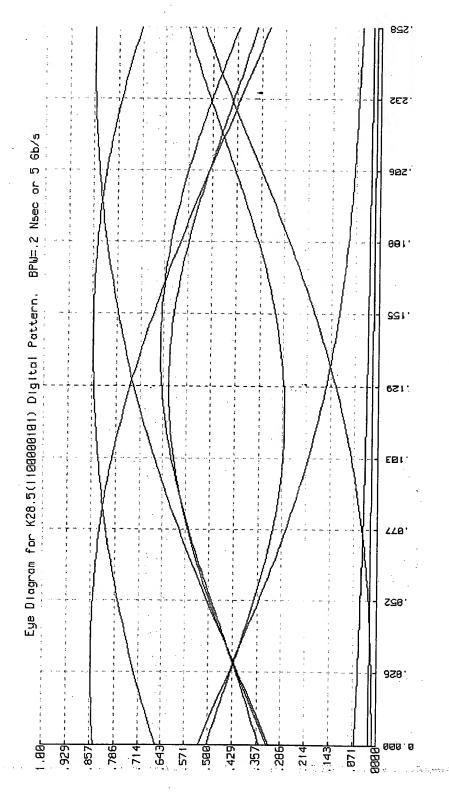


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IGURE 33





IGURE 34